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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,475	03/26/2001	Thiruvilwamalai Venkatraman Raman	YOR920010001US1	9819

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EXAMINER

TRAN, VINCENT V

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/817,475

Applicant(s)

RAMAN ET AL.

Examiner

vincent v tran

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) _____ is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5, 12-16, 21 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Ashby, III et al. (U.S. Patent No. 5,852,803).

Referring to claim 1, Ashby, III et al. disclose a method of using speech for marking and subsequently identifying one or more items having electronically-readable identifiers respectively marked thereon, the method comprising the steps of:

inputting at least a portion of the electronically-readable identifier marked on an item (bar code, col.2, ln.1-5; col.5, ln.31-33 and col.9, ln.31-36);

inputting from a user a spoken utterance that corresponds to the item (voice information, col.1, ln.63 – col.2, ln.1 and col.5, ln.33-35);

associating the electronically-readable identifier (bar-code label) input from the item with the spoken utterance input from the user (col.3, ln.36-39; col.5, ln.18-34 and col.9, ln.60-65); and

outputting the spoken utterance when the electronically-readable identifier associated with the spoken utterance is subsequently inputted (col.3, ln.36-52 and col.9, ln.31-47).

Referring to claim 2, Ashby, III et al. further disclose the method, wherein the electronically-readable identifier marked on the item is a universal product code (col.9, ln.31-34).

Referring to claim 3, Ashby, III et al. further disclose the method of reading the universal product code from each item with a barcode reader (col.9, ln.32-36; col.10, ln.21-31 and Fig.11, element #80).

Referring to claim 4, Ashby, III et al. further disclose the method, wherein the associating step comprises storing the spoken utterance corresponding to each item using the universal product code read by the barcode reader for each item as an index (memory, col.9, ln.31-47 and col.11, ln.1-3).

Referring to claim 5, Ashby, III et al. further disclose the method, wherein the outputting step comprises:

subsequently reading the universal product code from an item with the barcode reader (col.9, ln.31-34);

searching stored spoken utterances using the universal product code as an index (col.10, ln.66 - col.11, ln.3) ; and

playing back the spoken utterance that is found in the search to the user (col.11, ln.3-7).

Referring to claim 12, Ashby, III et al. disclose a system for using speech for marking and subsequently identifying one or more items having electronically-readable identifiers respectively marked thereon, the system comprising:

a first input device (bar-code reader, col.9, ln.32-36; col.10, ln.21-31 and fig.11, element #80), the first input device being operative to input at least a portion of the electronically-readable identifier marked on an item (bar code, col.2, ln.1-5; col.5, ln.31-33 and col.9, ln.31-36);

a second input device (microphone, col.6, ln.38 and fig.11, element #14), the second input device being operative to input a spoken utterance from a user that corresponds to the item (col.1, ln.63 – col.2, ln.1 and col.5, ln.33-35);

a storage mechanism (memory), the storage mechanism being operatively coupled to the first and second input devices and operative to associate the electronically-readable identifier input from the item with the spoken utterance input from the user (col.3, ln.36-39 and col.11, ln.1-3); and

an output device (speaker, fig.11, element #36), the output device being operatively coupled to the storage mechanism and operative to output the spoken utterance when the electronically-readable identifier associated with the spoken utterance is subsequently inputted (col.3, ln.36-52; col.9, ln.31-47 and col.11, ln.3-7).

Referring to claim 13, Ashby, III et al. further disclose the system, wherein the electronically-readable identifier marked on the one or more items is a universal product code (col.9, ln.31-34).

Referring to claim 14, Ashby, III et al. further disclose the system, wherein the first input device is a barcode reader which reads the universal product code from each item (col.9, ln.32-36; col.10, ln.21-31 and Fig.11, element #80).

Referring to claim 15, Ashby, III et al. further disclose the system, wherein the storage mechanism is operative to store the spoken utterance corresponding to each item using the universal product code read by the barcode reader for each item as an index (memory, col.9, ln.31-47 and col.11, ln.1-3).

Referring to claim 16, Ashby, III et al. further disclose the system, wherein the output device is operative to play back to the user the spoken utterance that is found during a search by the storage mechanism using a universal product code as an index when the universal product code is subsequently read from an item by the barcode reader(col.9, ln.31-34; col.10, ln.66 – col.11, ln.7).

Referring to claim 21, Ashby, III et al. disclose a apparatus for using speech for marking and subsequently identifying one or more items having barcodes respectively marked thereon, the apparatus comprising:

a barcode reader (col.9, ln.32-36; col.10, ln.21-31 and fig.11, element #80), the barcode reader being operative to input at least a portion of a barcode marked on an item (bar code, col.2, ln.1-5; col.5, ln.31-33 and col.9, ln.31-36);

a speech capturing device (microphone, col.6, ln.38 and fig.11, element #14), the speech capturing device being operative to input a spoken utterance from a user that corresponds to an item (col.1, ln.63 – col.2, ln.1 and col.5, ln.33-35);

at least one processor (central computer, fig.11, element #78), the processor being operatively coupled to the barcode reader and the speech capturing device and operative to: (i) associate in a database the barcode read from the item with the spoken utterance input from the user; and (ii) search the database for the spoken utterance when the barcode associated with the spoken utterance is subsequently read by the barcode reader; and coupled to the processor and operative to output the spoken utterance found during the search (col.10, ln.66 – col.11, ln.7).

Referring to claim 25, Ashby et al. disclose an article of manufacture for using speech for marking and subsequently identifying one or more items having electronically-readable identifiers respectively marked thereon, comprising a machine readable medium containing one or more programs which when executed implement the steps of:

inputting at least a portion of the electronically-readable identifier marked on an item (bar code, col.2, ln.1-5; col.5, ln.31-33 and col.9, ln.31-36);

inputting from a user a spoken utterance that corresponds to the item (col.1, ln.63 – col.2, ln.1 and col.5, ln.33-35);

associating the electronically-readable identifier input from the item with the spoken utterance input from the user (col.3, ln.36-39; col.5, ln.18-34 and col.9, ln.60-

65); and

outputting the spoken utterance when the electronically-readable identifier associated with the spoken utterance is subsequently inputted (col.3, ln.36-52 and col.9, ln.31-47).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6-11, 17-20 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ashby, III et al. in view of Jong (U.S. Patent No. 6,173,250).

Referring to claim 6, Ashby, III et al. suggest displaying textual associated with item on a local display (col.10, ln.21-41). But, Ashby, III et al. do not specifically disclose converting the spoken utterances input by the user to produce their text.

However, Jong teaches converting the spoken utterance to text (col.3, ln.36-43).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Ashby, III et al. to obtain text information by converting the user spoken utterances input, as taught by Jong, in order to produce text for deaf or hearing-impaired.

Referring to claim 7, Ashby, III et al. do not specifically disclose converting the

spoken utterance to text by a speech recognition system.

However, Jong teaches converting the spoken (utterance) to text by speech recognition system (speech recognition device, col.3, ln.36-43).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Ashby, III et al. to obtain text by a speech recognition system, as taught by Jong, in order to produce text for deaf or hearing-impaired.

Referring to claim 8, Ashby, III et al. do not specifically disclose converting text obtained from input speech back to speech but play back the original speech when the electronically-readable identifier associated with the spoken utterance is subsequently inputted.

However, Jong teaches converting the user's original input speech to text, storing text data in the memory (col.4, ln.14, 16 and fig.2, element #207), and then converting the text data into synthesized speech for output by speech output device (col.5, ln.11-30).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Ashby, III et al. to have the step of converting the user's input speech to text and text back to speech, as taught by Jong, when the electronically-readable identifier associated with the spoken utterance is subsequently inputted, in order to provide multi-modal communication, not only for the deaf or hearing-impaired but also for the sight-impaired.

Referring to claim 9, Ashby, III et al. do not specifically teach converting the text back to speech by a text-to-speech system.

However, Jong teaches converting the text obtained from input speech back to speech by a text-to-speech system (text to speech conversion device, col.5, ln.24-27 and fig.2, element #206).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Ashby, III et al. to have the text to speech system provide the speech information, as taught by Jong, in order to provide multi-modal communication not only for the deaf or hearing-impaired but also for the sight-impaired.

Referring to claim 10, Ashby, III et al. do not specifically disclose speech-to-text conversion performed on a computing device remotely located with respect to a computing system performing the other steps.

However, Jong suggest a method, wherein the speech-to-text conversion is performed on a computing device (speech recognition device, fig.2, element #203) remotely located with respect to a computing system (STT system, col.2, ln.55-56) performing the othersteps (col.2, ln.65; col.5, ln.13-33, fig.1 shows systems 100 and 110. System 100 performs speech-to-text conversion and system 110 performs text-to-speech conversion. The two systems are remotely located, and they are connected by a transmitting network).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Ashby, III et al. to have speech-to-text conversion performed on a computing device remotely located with respect to a computing system performing the other steps, as taught by Jong, in order to provide an efficient centralized way to transmit speech data and to facilitate update and maintenance.

Referring to claim 11, Ashby, III et al. disclose the computer device archives electronically-readable identifiers and associated spoken utterance (col.10, ln.66 – col.11, ln.7). But, Ashby et al. do not specifically disclose a computing device that performs the speech-to-text conversion.

However, Jong teaches the computing device that performs the speech-to-text conversion, and operation way of the speech-to-text conversion when it receives speech input signals (fig.3).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Ashby, III et al. to have the computing device that performs the speech-to-text conversion, as taught by Jong, in order to carried and restore data in another system.

Referring to claim 17, Ashby, III et al. teach text associated with the electronically-readable identifier, but do not specifically disclose converting the spoken utterances input by the user to text.

However, Jong teaches converting the spoken utterance to text by a speech

recognition system (speech recognition device, col.3, ln.36-43).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Ashby, III et al. to obtain text by a speech recognition system, as taught by Jong, in order to produce the text for deaf or hearing-impaired.

Referring to claim 18, Ashby, III et al. do not specifically disclose a text-to-speech system operatively coupled between the storage mechanism and the output device and operative to convert the text back to speech when the electronically-readable identifier associated with the spoken utterance is subsequently re-inputted and then outputting the converted speech.

However, Jong teaches to convert the user's input speech to text and stored text data in the memory (col.4, ln.14, 16 and fig.2, element #207), the text data can be display or forwarded to the text to speech conversion device where the text data is converted into synthesized speech then output by speech output device (col.5, ln.11-30).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Ashby, III et al. to have the step of converting the user's input speech associated with the electronically-readable identifier to text and text back to speech, as taught by Jong, in order to provide multi-modal communication not only for the deaf or hearing-impaired but also for the sight-impaired.

Referring to claim 19, Ashby, III et al. do not specifically disclose the system, comprising a speech recognition system, remotely located with respect to the system, for converting the spoken utterances input by the user to text.

However, Jong suggest a method, wherein the speech-to-text conversion is performed on a computing device (speech recognition device, fig.2, element #203) remotely located with respect to a computing system (STT system, col.2, ln.55-56) performing the other steps (col.2, ln.65; col.5, ln.13-33, fig.1 shows systems 100 and 110. System 100 performs speech-to-text conversion and system 110 performs text-to-speech conversion. The two systems are remotely located, and they are connected by a transmitting network).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Ashby, III et al. to have speech-to-text conversion performed on a computing device remotely located with respect to a computing system performing the other steps, as taught by Jong, in order to provide an efficient centralized way to transmit speech data and to facilitate update and maintenance.

Referring to claim 20, Ashby, III et al. further disclose a computing device for remotely archiving the electronically-readable identifier/spoken utterance association (fig.11, elements #74 and #84, col.10, ln.66 – col.11, ln.7 and col.3, ln.38-43, the vocal

message can be recorded into a storage device corresponding to the bar-code label.
The storage device is remote from the bar-code label (col.10, ln.16-21)).

Referring to claim 22, Ashby, III et al. suggest displaying text associated with item on a local display (col.10, ln.21-41). But, Ashby, III et al. do not specifically disclose converting the spoken utterances input by the user to produce their text.

However, Jong teaches converting the spoken (utterance) to text (col.3, ln.36-43).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Ashby, III et al. to obtain text information by converting the user spoken utterances input, as taught by Jong, in order to produce text for deaf or hearing-impaired.

Referring to claim 23, Ashby, III et al. disclose the apparatus, wherein the processor is operative to output the spoken utterance when the electronically-readable identifier associated with the spoken utterance is subsequently inputted (col.9, ln.31-47). But, Ashby, III et al. do not specifically disclose a apparatus, wherein the processor is operative to convert the text back to speech when the barcode associated with the spoken utterance is subsequently read such that the converted speech is output by the speech outputting device.

However, Jong teaches a processor operative to convert the user's input speech to text and stored text data in the memory (col.4, ln.14, 16 and fig.2, element #207), the text data can be display or forwarded to the text to speech conversion device where the

text data is converted into synthesized speech then output by speech output device (col.5, ln.11-30).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Ashby, III et al. to have the processor is operative to convert the user's input speech to text and text back to speech, as taught by Jong, when the electronically-readable identifier associated with the spoken utterance is subsequently inputted in order to increase the convenience for the deaf or hearing-impaired by presenting text on the display.

Referring to claim 24, Ashby, III et al. further disclose apparatus configured to be user-portable (fig.11, top element #74).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dietz (U.S. Patent No. 6,175,820) teach a method for providing voice dynamics of human utterances converted to and represented by text with a data processing system.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner **Vincent V. Tran** whose E-mail address:

Vincent.tran@USPTO.GOV.

Phone number: (703) 305-1817

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Talivaldis Ivars Smits, can be reached on (703) 306-3011. Any inquiry of a general nature or relating to the status of this application call receptionist at (703) 305-3900.

7. Any response to this action should be mailed to:

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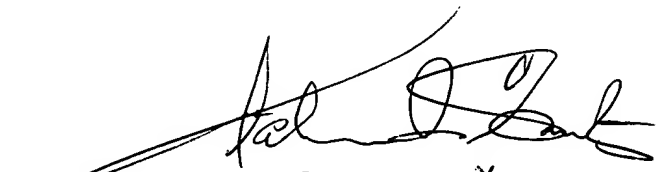
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Dr, Arlington VA, Sixth Floor (Receptionist, Tel. No. 703-305-4700).

Art Unit 2655

VINCENT V. TRAN



Date: October 20, 2003



TĀLIVALDIS IVARS ŠMITS
PRIMARY EXAMINER